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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/681,212

10/09/2003

Shigenori Watari

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EXAMINER

GORDON, BRIAN R

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/681,212	<b>Applicant(s)</b> WATARI ET AL.	
	<b>Examiner</b> Brian R. Gordon	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10-9-09.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 7-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 09/789,625.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed October 9, 2009 have been fully considered but they are not persuasive.

As to applicant's claim to foreign priority under 35 U.S.C. 119, the examiner finds the claim for priority is insufficient. While the claimed invention may be supported by the combination of the foreign documents JP 2000-54955 and JP 2000-50034, neither reference alone discloses the claimed invention. Furthermore, it should be noted that the JP 2000-50034 has different inventors. Furthermore, there is no indication that the instant application has the same assignee as the foreign documents.

As to the art rejection applicant asserts, Akira does not disclose the first and second acoustic wave generating means based on the intended function of such means to agitate the liquid. It should be noted that the instant claims are directed to an apparatus, therefore the claims must be distinguished from the prior art based upon structural differences rather than intended use/function. The examiner does recognize that the language of claims directed to the respective means is under 112, 6th paragraph, (means-plus-function). However, it is not required that the prior art disclose the specific function. It is only required that the prior art disclose the same structure or an equivalent thereof that would be capable of performing such function.

The examiner asserts the sound wave generating means as seen in figure 5(c) as (lateral wave generators 1, i, i+1), and unlabeled lower wave generator are structural

equivalents. Furthermore, as illustrated in figure 5(c), the generators function to raise a liquid and agitate a liquid as claimed.

Applicant asserts the generators of the reference are limited to detecting properties of the liquid. The examiner disagrees for reasons stated above. Furthermore the reference discloses the oil-level is raised [0024]. Even if the reference were silent to such, the wave generators would still inherently have the ability to function as claimed. It is also inherent that some movement of the liquid results from the application of the sound waves even when the intended purpose is for measuring properties of the liquid.

As to the assertion that the reference does not disclose the claimed control means. The examiner disagrees for reasons stated above. Furthermore, the reference discloses a main controller 112, commander 204, and controller 208 which function not only in detecting the liquid level, but to control the level at which the sound waves generated by generators 1, i, i+n are applied.

Even if, the reference was silent to such, the examiner asserts that it would have been obvious to one of ordinary skill in the art at the time of the invention to recognize that only the generators (1, i, i+n) where the level exists should be activated. When the purpose is for property determination or agitation, it would be useless to apply sound waves to an area of the vessel where no liquid is present.

It should be noted that while applicant has given an example of what is considered an associated format. The claim is not limited to such. As such, any format would be considered an associated format, for the data is related (associated) with analysis of the liquid.

If view of the above remarks, the claims are rejected as given herein.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 7-16 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for having multiple means for generating a lateral acoustic wave (35) that are vertically aligned along a length of the vessel, wherein each means is capable of being activated to generate a lateral wave according to the liquid level in the vessel, does not reasonably provide enablement for controlling a position of irradiation of the first means. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make or use the invention commensurate in scope with these claims. The claim as presently drafted implies that the first means is a single generator 35. In order for the position of irradiation of such device to be controlled or change, then either the generator or the vessel would have to be moveable or controlled to move. There is no indication in the specification that the single generator or vessel is controlled to be moved.

Furthermore in reference to claim 11, the control means is equivalent to the controller 11. However, the controller alone does not control the angle of irradiation as claimed. As disclosed in the specification [0100], the reflecting material 38, reflecting means is essential to the function of changing the angle. As such the element must be claimed in order for the device to function as claimed.

***Claim Rejections - 35 USC § 102***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 7, 10-11, and 15-16 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over by Akira JP2000338113.

Akira discloses a structurally equivalent chemical analyzer including a pair of side array sound sources 205 and a pair of sound receiving elements 207 respectively opposite to one another are operated to measure the transmission of partial acoustic wave of the reaction vessel 102 at the position. This measurement is executed on each pair, a transmission amount of acoustic wave at each position is measured, and a position of the maximum difference in the transmission amount is regarded as a position of a liquid surface 209. When the acoustic wave of polarized intensity is applied from a lower sound source 206 to a sound source side, and the liquid surface 209 is pressed up to a reaction vessel 102 side surface, the liquid surface 209 is lowered at a side surface at the opposite side. This is determined by the surface tension, concentration, hydrophilic property to a vessel wall and the like of an object to be stirred, and the characteristics can be identified on the basis of the intensity of the applied acoustic wave and the polarization of the liquid surface 209. This detection is executed not only before the stirring but also similarly executed after the stirring to be compared, and the achievement in stirring and mixing can be evaluated.

The claims would be obvious as indicated in Response to Arguments.

***Claim Rejections - 35 USC § 103***

6. Claims 8-9 and 12-14 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Akira.

Akira discloses that multiple characteristics/parameters are stored in the controller.

In alternative, the examiner asserts it would have been obvious to one of ordinary skill in the art at the time of the invention recognize the device maybe modified to include a controller/computer system as taught by Laugharn et al., US 6,948,843 to optimize operation of the device.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian R. Gordon whose telephone number is 571-272-1258. The examiner can normally be reached on M-F, 1st Fri. Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brian R Gordon/  
Primary Examiner  
Art Unit 1797